

1    1.    A guidewire for inserting into body passageways during medical procedures  
2    comprising:  
3         a length of titanium molybdenum alloy wire.

1

1    2.    A guidewire for inserting into body passageways during medical procedures as in  
2    claim 1 wherein,  
3         the length of titanium molybdenum alloy wire has a proximal end and a distal  
4    end, the distal end being of a smaller diameter and therefore softer than the proximal end.

1

1    3.    A guidewire for inserting into body passageways during medical procedures as in  
2    claim 2 having,  
3         a gradient of softness between the distal end and the proximal end with the distal  
4    end being softer.

1

1    4.    A guidewire for inserting into body passageways during medical procedures as in  
2    claim 2 having,  
3         a taper of the diameter between the distal end and the proximal end with the distal  
4    end being smaller.

1

1

1     5.     A guidewire for inserting into body passageways during medical procedures as in  
2     claim 2 having,

3                 a distal end having a coil wrapped around, with the coil touching the distal end  
4     such that the coil provides springiness at the distal tip and touches the distal tip to prevent  
5     kinking of the coil.

1

1     6.     A guidewire for inserting into body passageways during medical procedures as in  
2     claim 2 having,

3                 a distal tip on the end of the distal end to prevent the distal end from penetrating  
4     tissue in the wall of a passageway.

1

1     7.     A guidewire for inserting into body passageways during medical procedures as in  
2     claim 2 wherein the titanium molybdenum alloy wire comprises approximately 78%  
3     titanium 11.5% molybdenum 6% zinc and 4.5% tin by weight.

1

1     8.     A guidewire for inserting into body passageways during medical procedures as in  
2     claim 2 wherein the titanium molybdenum alloy wire comprises approximately between  
3     about 75 % and about 83 %titanium, between about 8 % and about 14 %molybdenum  
4     between about 4 % and about 8 % zinc and between about 2 % and about 6 % tin by  
5     weight.

1

1

1    9.     A guidewire for inserting into body passageways during medical procedures  
2     comprising:

3         obtaining a titanium molybdenum alloy wire,  
4         grinding the distal end to make a smaller diameter,  
5         attaching a coil to the distal end  
6         attaching a distal tip to the distal end.

1

1    10.    A guidewire for inserting into body passageways during medical procedures as in  
2    claim 9 with the further step of,  
3         tapering the distal end to provide a gradient of softness.

1

1    11.    A guidewire for inserting into body passageways during medical procedures as in  
2    claim 9 with the further step of,  
3         heat treating the distal end to provide a gradient of softness.

1